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(143)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant : Andreas MESCHENMOSER

Group Art Unit: 1731

Appln. No. : 09/982,175

Examiner: K. Hastings

Date : October 19, 2001

For : SHOE PRESS

APPEAL BRIEF UNDER 37 C.F.R. § 1.192

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

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Sir:

This appeal is from the Examiner's final rejection of claims 1 - 9 and 12 - 41 as set forth in the Official Action of November 15, 2002.

A Notice of Appeal in response to the November 15, 2002 Final Office Action was filed February 19, 2003. Further, the instant Appeal Brief is being timely submitted within two months of the filing of the Notice of Appeal, i.e., by April 21, 2003 (April 19, 2003 being a Saturday).

The requisite fee under 37 C.F.R. 1.17(c) in the amount of \$ 320.00 for the filing of the Appeal Brief is being paid by check, submitted herewith. However, if for any reason the necessary fee is not associated with this file, the Commissioner is authorized to charge the fee for the Appeal Brief and any necessary extension of time fees to Deposit Account No. 19 - 0089.

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This appeal brief is being submitted in triplicate, pursuant to 37 C.F.R. 1.192(a).

(1) **REAL PARTY IN INTEREST**

The real party in interest is Voith Paper Patent GmbH by an assignment recorded in the U.S. Patent and Trademark Office on October 19, 2001 at Reel 012433 and Frame 0356.

(2) **RELATED APPEALS AND INTERFERENCES**

No related appeals and/or interferences are pending.

(3) **STATUS OF THE CLAIMS**

Claims 1 - 9 and 12 - 41, the only claims pending in the instant application, stand finally rejected.

(4) **STATUS OF THE AMENDMENTS**

An Amendment under 37 C.F.R. 1.116 was filed January 15, 2003 to place claims 6, 21, and 22 into independent form. The Examiner's Advisory Action of January 29, 2003 indicates that the amendment will be entered upon the filing of the Notice of Appeal and this Appeal Brief, but that all claims remain rejected.

(5) **SUMMARY OF THE INVENTION**

The instant invention is directed to a shoe press and a press section including a shoe press for processing a fibrous material web, in particular a paper or cardboard web, having two shoe press units between which an essentially level felted press nip is formed in the web travel direction and one circulating flexible continuous sealing belt is guided over each press

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shoe in the region of the press nip. (Specification page 1, second full paragraph). The exemplary embodiment of the instant invention provides that, on both sides of the material web, a driven continuous press belt is additionally guided together with the material web. The two press belts are each preferably formed by a dewatering belt, such as a water permeable wire, and the press nip is double-felted, with both felts guided horizontally between the two additional press belts together with the fibrous material web arranged therebetween. Further, the sealing belts have an open press surface, e.g., grooved and/or blind bored (Specification page 3, third full paragraph and page 4, first full paragraph - third full paragraph).

As a result of the arrangement of the exemplary embodiment, the sandwich to be pressed, which includes the fibrous material web and the felts, are guided through the press by the additionally provided press belts, with a straight guidance now being possible over an extended distance particularly before and after the press nip. Accordingly, a pressing practically free of lateral forces results in the extended press nip of the shoe press, and a targeted pressing in the z-direction results. Further, independently of the respective length of the press nip, lateral forces in the machine direction are avoided on the fibrous material web, the felts, and the press jackets. Therefore, an optimal dewatering and web surface on the same side, a high volume, and a good tenacity are ensured. (Specification, bridging paragraph on pages 3 and 4).

Shoe presses known in the art develop considerable lateral forces between sandwiched separate layers, i.e., mating roll/lower felt, lower felt/paper, paper/upper felt, upper felt/press jacket, and press jacket/shoe, and these strong lateral forces occurring in the sandwich layers is particularly caused by the asymmetrical shape change and the different settling characteristics of the layers. Further negative effects on the sheet structure arise due to slippage occurring under high pressure between the felts in the web travel direction. (Specification, page 2, first and second paragraphs and Figure 1).

The present invention avoids the above-noted drawbacks of the prior art. In particular, the exemplary embodiment of the invention is directed to a press section 28 for producing a fibrous material web 30, e.g., a paper web or a cardboard web, provided with a single press, i.e., shoe press 32. Shoe press 32 comprises two shoe press units 34 and 36 arranged to form a press nip 38 that is at least essentially level and elongated in the web travel direction L. Press nip 38 is referred to as a double-felted press nip, in that a press felt is provided on each side of the web as it passes through press nip 38. (Specification page 11, first and second full paragraphs and Figure 2). Further, shoe press units 34 and 36 are each provided with a circulating flexible continuous sealing belt 44 and 46, guided over press shoes 40 and 42, respectively, in the region of the press nip 38, and driven continuous press belts 48 and 50, formed by dewatering belts, are guided through double-felted press nip 38 on opposite sides of fibrous material web 30. (Specification page 11, third full paragraph and

Figure 2).

According to the exemplary embodiment, upper felt 52 and lower felt 54 are provided on opposite sides of material web 30 in press nip 38, thereby forming the above-noted double felted press nip, press belts 48 and 50 are arranged to sandwich felts 52 and 54, and sealing belts 44 and 46, which are formed by the jacket of the respective shoe press roll, sandwich press belts 48 and 50. To form the at least essentially even press nip 38, press shoes 40 and 42 are each provided with an at least essentially level support surface over which sealing belts 44 and 46 are guided. Moreover, a press plane 56 (through press nip 38) is inclined relative to a vertical reference 58 to an angle of incline  $\alpha$  within a range of, e.g., approximately  $10^\circ$  to approximately  $45^\circ$ . (Specification, page 12, first full paragraph - fourth full paragraph and Figure 2).

Press belts 48 and 50 can each be provided with one open press surface, e.g., a blind bored and/or grooved surface, to allow for a corresponding dewatering of the web. Further, press belts 48 and 50 may each be formed by a water permeable wire web. When formed as water permeable wire webs, sealing belts 44 and 46 are provided with an open press surface, which considerably increases the dewatering capacity and is particularly important in the case of low dry contents prior to the press and/or in the case of high surface weights. (Specification, page 12, fifth and sixth full paragraphs and Figure 2).

According to the exemplary embodiment, upper press belt 48 and lower press belt 50

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are guided around at least one additional driven deflection roll 72 and 74, respectively, which preferably assumes the function of a belt travel control roll. Further, press belts 48 and 50 are each guided, prior to press nip 38, around deflection rolls 99 and 100, respectively, which can also assume the function of a belt travel control roll. (Specification page 13, first and second full paragraphs).

**(6) ISSUES**

**(A) Whether Claims 1 - 9 and 12 - 41 are Improperly Rejected Under 35 U.S.C. § 103(a) as Unpatentable Over German Patent Application No. 298 11 048 [hereinafter "DE '048"] or SCHIEL et al. (U.S. Patent No. 6,065,396) [hereinafter "SCHIEL"] and further as necessary with MacDONALD et al. (*Pulp and Paper Manufacture*, 2nd ed., Vol. III ("Papermaking and Paperboard Making")) [hereinafter "MacDONALD"]; further with DAHL (U.S. Patent No. 4,915,790) and/or MEINANDER et al. (U.S. Patent No. 4,492,611) [hereinafter "MEINANDER"], and further in view of JUSTUS et al. (U.S. Patent No. Re 31,923) [hereinafter "JUSTUS"]; and**

**(C) Whether Claims 13 - 17, 22, 40, and 41 are Improperly Rejected Under 35 U.S.C. § 103(a) as Unpatentable over DE '048 and/or SCHIEL as necessary with MacDONALD and further with DAHL and/or MEINANDER as well as with JUSTUS and further in view of LAAPOTTI (U.S. Patent No. 5,662,778).**

**(7) GROUPING OF CLAIMS**

For the purpose of this appeal, Appellants submit that claims 1, 2, 5, 8, 9, and 19 stand or fall together and that claims 23 - 25 and 27- 29 stand or fall together. However, Appellants submit that claims 3, 4, 6, 7, 12- 18, 20 - 22, 26, and 30 - 41 do not stand or fall together and are separately patentable for the reasons set forth hereinbelow.

**(8) ARGUMENT**

**(A) The Rejection of Claims 1 - 9 and 12 - 41 Under 35 U.S.C. § 103(a) Over DE '048 or SCHIEL and further as necessary with MacDONALD further with DAHL and/or MEINANDER, and further in view of JUSTUS is in Error, the Rejection Should be Reversed, and the Application Should be Remanded to the Examiner.**

The Examiner asserts that, in addition to the rejections set forth on pages 1 - 6 in the first Official Action, DAHL has been applied for purportedly showing (col. 5, lines 20 - 24) that it is known to replace a press felt with either felts, foils or wires, and, therefore, it would have been obvious to replace the press felt with a water permeable wire web, as recited in the independent claims. Moreover, the Examiner points out that MEINANDER discloses that a water pervious belt 8, e.g., a fabric wire, can be utilized to increase the dewatering capacity of a water pervious and/or absorbing felt 7, e.g., a press felt, running with a web 3 through a nip. Appellant traverses the Examiner's assertions.

As summarized above, the instant invention is directed to double-felted shoe press, which, as shown in Figure 1 of the instant application, are conventionally driven on only one side of the web. This conventional arrangement suffers from several disadvantages, *inter alia*, that relatively strong lateral and/or shearing forces occur in the press nip in the web travel direction, and that, as the press nip length increases, so do these forces. Further, as the felts change their dimensions due to the wear in the press nip, these forces become stronger.

To address this deficiency of the conventional press, the instant inventor utilizes driven continuous press belts, e.g., formed by a dewatering belt, in order to guide the web through a double press nip. In this manner, the above-noted lateral and/or shearing forces are avoided. Accordingly, Appellant's independent claims 1, 23, and 37 recite, *inter alia*, at least one of said *at least two press belts* comprises a water permeable wire web, and at least one of said *at least two sealing belts* comprises an open press surface that is at least one of blind bored and grooved (in terms of independent claim 1). Moreover, Appellant submits that no proper combination of the applied documents teaches or suggests the above-noted combination of features.

Appellant notes that base reference DE '048 is directed to a pressing arrangement (*see* Figure 5) in which an apparent flat nip is formed between shoe press rolls 20 and 22. A press jacket 40 is guided around the upper press shoe of shoe press roll 20 and, while not specifically identified in the document, a press jacket is likely guided around the lower press



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shoe of shoe press roll 22. While not specifically identified in Figure 5, other Figures in the cited document indicate that a pair of press felts (upper press felt 14 and lower press felt 18) are guided through the nip. However, Appellant notes that DE '048 fails to provide any teaching or suggestion that any roll, other than roll 24, is a driven roll. Thus, it would appear that this arrangement is somewhat analogous to the double-felted press discussed in the Background of the Invention section of the instant application and illustrated in prior art Figure 1, and fails to teach that any of the disclosed belts are driven.

In the instant rejection, the Examiner, while acknowledging that DE '048 does not teach or suggest the recited press belts, asserts that, from the teaching of DAHL, it would have been obvious to modify DE '048 to utilize press belts in place of the felts. However, contrary to the Examiner's assertions, the art of record fails to provide any teaching or suggestion of replacing press felts with a press belt.

In particular, the Examiner refers to column 5, lines 20 - 24 of DAHL in support of her assertion that a press wire (and, in particular, the recited water permeable wire web) is a known alternative for use as a press felt, and that it would have been obvious to replace the press felt of DE '048 with a wire web. However, Appellant submits that no support for the Examiner's assertions can be found in DAHL. In particular, Appellant notes that the arrangement of DAHL shows both a press felt 7 *and* a storage belt or band 9 located between the felt and the roll surface. The disclosure referred to by the Examiner is directed to known

constitutions for *storage band 9*, i.e., to form the belt to separate press felt 7 from the roll surface. In this regard, while DAHL discloses that storage band 9 can be formed by, *inter alia*, a felt or a wire, there is no teaching or suggestion by DAHL that a felt and a wire are universally interchangeable, which is the Examiner's interpretation of DAHL. Thus, while Appellant submits that, within the context of the disclosure of DAHL, storage band 9, which is arranged to separate felt 7 from the roll surface, can be formed by either a wire or a felt, DAHL has not provided any universal teachings that any felt can be replaced by a wire or *vice versa* in any and all situations in a papermaking apparatus.

Moreover, Appellant notes that, in contrast to DAHL, DE '048 fails to disclose a storage belt arranged to separate the felt from the roll, and that, as the disclosed press felts of DE '048 are not utilized for the same purpose as the storage band of DAHL, it would not have been obvious to one ordinarily skilled in the art to replace the felt of DE '048 with a wire, based upon DAHL's teaching regarding storage bands.

Further, as the express disclosure of DAHL provides that press felt 7 and storage band 9 are used *in conjunction* with each other, not separately or as alternatives, Appellant submits that DAHL provides no disclosure that fairly teaches or suggests replacing press felt 7 with a wire web. That is, DAHL merely teaches that storage belt 9 can be formed by a press felt or a wire, and provides no guidance for modifying press felt 7. Thus, Appellant further submits that the art of record fails to teach or suggest the necessary motivation or rationale

for combining the documents in the manner asserted by the Examiner.

Thus, contrary to the Examiner's assertions, Appellant submits that DAHL fails to provide any teaching or suggestion that any press felt, such as press felt 7 of DAHL or the press felts of DE '048, can be replaced with a wire web. As such, Appellant submits that the asserted combination of documents fails to teach or suggest, *inter alia*, at least one of said *at least two press belts* comprises a water permeable wire web, as recited in at least independent claims 1, 23, and 37.

With regard to MEINANDER, Appellant notes that the disclosed press is formed by two water impervious belts 4 and 5 arranged to form a press nip. Moreover, within the defined press nip, web 3 is arranged to be pressed between water impervious belt 4 on one side and a press felt 7 on the other side. On the side of press belt 7 opposite the web, the press also includes a water pervious belt 8, which can be a fabric wire, then water impervious belt 5.

Because MEINANDER fails to teach or suggest a double felted press, which is the subject of DE '048, Appellant submits that MEINANDER fails to provide any disclosure to fairly teach or suggest modifying the double felted press of DE '048 in the manner suggested by the Examiner. Moreover, Appellant notes that, as MEINANDER does not teach or suggest an arrangement for two-sided water removal, and, in fact, expressly discloses that the one side of web is supported by *water impermeable belt 4*, the art of record fails to

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provide the requisite motivation or rationale for modifying the double felt arrangement of DE '048 in view of teachings in the unrelated press nip of MEINANDER.

Further, even assuming, *arguendo*, that the Examiner's assertions regarding modifying DE '048 in light of DAHL were believed to be obvious (which Appellant submits they would not), the resulting apparatus would be a double wire press. As such, Appellant submits that it would not have been obvious to modify this arrangement in view of the teachings of MEINANDER, since MEINANDER does not related to double wire presses, and, in fact, is not even directed to a wire press.

Still further, assuming, *arguendo*, that one were to find it obvious to combine DE '048, DAHL, and MEINANDER in the manner asserted by the Examiner (which Appellant submits one would not), Appellant notes that the asserted combination still fails to teach or suggest driven press belts; as recited in at least in the independent claims. In particular, Appellant notes that the inventor of the instant invention has found that the two driven press belts avoid the undesired lateral and/or shear forces of the prior art presses, and that none of the applied documents appreciate this problem identified by the inventor. Accordingly, Appellant submits that the no proper combination of these documents can even arguably overcome the problem addressed by the present invention.

While the Examiner asserts that MacDONALD teaches that all rolls and cylinders will one day be driven; Appellant submits that this disclosure is merely a theory and not a positive

teaching in the art. As such, while it may provide guidance for practitioners in future endeavors, to facilitate moving of the web, there is no teaching or suggestion of the above-noted problem to be addressed by the instant invention. That is, MacDONALD, as well as the other applied documents of record, fails to appreciate the problem of lateral and/or shear forces that arises in conventional presses, and certainly fails to positively identify driving press belts, as recited in at least the independent claim. Further, MacDONALD's general statements regarding what may happen in the future is not a positive teaching that all rolls should be driven, which appears to be the Examiner's interpretation of MacDONALD's theory, and, therefore, cannot be relied upon a teaching for modifying the art of record in the manner asserted by the Examiner.

Further, Appellant notes that the applied portion of the document is related to helper motors, and it is disclosed that, helper motors may likely become more prevalent (but not necessarily) in the art to assist the driving of rolls and cylinders *which are currently driven only by belts*. However, Appellant notes that the pending claims are directed to driving *the belts*, which would appear opposite the theory posited by MacDONALD.

Further, MacDONALD provides a chart of various rolls and cylinders for which helper motors will likely be utilized. However, MacDONALD has not stated that one day a drive will be on *every* roll or cylinder in a papermaking machine, nor is there any teaching or suggestion of driving press belt on each side of the web, as recited in the independent

claims.

Moreover, notwithstanding his general discussion of helper motors, MacDONALD fails to teach or suggest the problem to be addressed by the present invention, i.e., to avoid lateral and/or shear forces that arise in the conventional presses which are only driven on one side of the web. Thus, Appellant notes that it is not apparent that the use of helper motors in the areas identified by MacDONALD would address or overcome the problem identified and solved by the present invention.

Notwithstanding the Examiner's assertions regarding JUSTUS, Appellant notes that this document likewise fails to teach or suggest the above-noted deficiencies of the applied art, and certainly fails to disclose or suggest the necessary motivation or rationale that would render the combination of the above-noted documents proper.

Rejections based on 35 U.S.C. § 103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The Examiner has the initial duty of supplying the factual basis for the rejection and may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis. *See In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 177 (CCPA 1967). As stated in *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-313 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984):

[t]o imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.

Appellant submits that, while various individual features recited in at least independent claims 1, 23, and 37 may appear in the applied documents, the art of record, when considered as a whole, fails to disclose any manner in which the documents fairly suggest the combination/modifications asserted by the Examiner. That is, as the various documents set forth wholly distinct arrangements intended to act in different ways on the web, Appellant submits that the art of record fails to teach or suggest any manner of properly combining the art. In fact, Appellant submits that it is apparent that the only reason to combine the teachings of the applied references in the manner proposed by the Examiner results from a review of Appellant's disclosure and the application impermissible hindsight.

Further still, Appellant notes that SCHIEL has been applied in conjunction with or in lieu of DE '048. In this regard, Appellant notes that, while SCHIEL discloses a flat nip press device having a web guide belt 6 arranged as a drive belt for the press, there is no teaching or suggestion that this guide belt comprises a water permeable wire web, as recited in at least independent claims 1, 23, and 37.

While the Examiner has noted that the guide belt of SCHIEL may be a felt belt, the art of record, as, has been fully discussed above, fails to teach or suggest that a wire web can be universally substituted for a felt belt. Further, even assuming that such a modification

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were made (which Appellant submits would not have been obvious), Appellant notes that the arrangement of SCHIEL is analogous to prior art Figure 1 of the instant application, i.e., only a guide belt positioned on one side of the press is driven. As such, Appellant submits that SCHIEL also fails to appreciate the problem identified by the inventor, and therefore, certainly cannot even arguably suggest its solution.

Moreover, while SCHIEL discloses that the guide belt can be felt belt, there is no teaching or suggestion that the felt belt provided in DE '048 (or any of the other applied documents) can withstand the tensions described by SCHIEL in order to operate in the manner required by the guide belt of SCHIEL. In other words, given the stresses to be exerted on and by the guide belt of SCHIEL, it is not apparent from the art of record that one ordinarily skilled in the art would be motivated to utilize such a water permeable wire web for such a use.

Still further, while the Examiner asserts that SCHIEL suggests using a guide belt for each press, Appellant submits that this would appear to create additional considerations, such as problems with regard to speed regulation and control between the guide belts, particularly, since it is unclear how the driving device would be affected by the use of a water permeable wire web as a guide belt.

In establishing a *prima facie* case of obviousness under 35 U.S.C. § 103, it is incumbent upon the Examiner to provide a reason *why* one of ordinary skill in the art would



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have found it obvious to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. *See Ex parte Clapp*, 227 USPQ 972 (BPAI 1985). To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from Appellant's disclosure. See, for example, *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988). Appellant contends that the Examiner has failed to set forth any reason as to *why* one of ordinary skill in the art would have been led to modify DE '048 or SCHIEL or combine the art of record in the asserted manner. In particular, Appellant notes that the art of record fails to provide any teaching or suggestion of any particular problem in the art to be solved, and certainly none of the applied documents recognize the problem to be addressed by the instant invention. Further, as the art of record discloses apparatuses for acting on different portions of a web in different manners with different elements, the Examiner has merely pointed out individual features of the recited invention without satisfying her burden of setting forth *why* one ordinarily skilled in the art would have modified/combined the art in the manner asserted by the Examiner. In this regard, it is respectfully submitted that the courts have long held that it is impermissible to use Appellant's claimed invention as an instruction manual or "template" to piece together teachings of the prior art so that the claimed invention is purportedly rendered obvious. *See In re Fritch*, 972 R.2d 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992).

Accordingly, Appellant submits that no proper combination of the applied documents of record teach or suggest the combination of features recited in at least the independent claims. Moreover, Appellant submits that the art of record fails to provide the requisite motivation or rationale for modifying the art of record in any manner that would render the instant invention obvious. Thus, Appellant submits that the instant rejection is improper and should be withdrawn.

For the foregoing reasons, Appellant submits that independent claims 6, 21, and 22, which recited the above-described features, are likewise allowable over the art of record. Further, Appellant notes that these claims are further patentable over the art of record, for the following reasons.

In particular, Appellant notes that none of the applied documents teach or suggest a press plane through said press nip is inclined in relation to a vertical reference, as recited in claim 6. Accordingly, Appellant submits that no proper combination of the applied documents can render unpatentable the combination of features recited in at least independent claim 6. Further, Appellant notes that none of the applied documents teach or suggest, outside of the press nip, that the at least two press belts are guided separately from the at least two sealing belts, as recited in claim 21, and none of the documents teach or suggest that, prior to the press nip, at least one of the at least two press belts is guided around a deflection roll structured and arranged as a belt travel control roll, as recited in claim 22.

Thus, Appellant submits that no proper combination of the applied documents can render unpatentable the combination of features recited in at least independent claims 21 and 22.

Accordingly, Appellant requests that the Examiner's decision to finally reject claims 1, 6, 21, 22, 23, and 37 be reversed and that the application be remanded to the examining group for early allowance.

Further, Appellant submits that, as the documents fail to teach or suggest any proper combination of that would render unpatentable the recited combination of belts in at least the independent claims 1, 23, and 37, the art of record fails to teach or suggest the recited specific features and/or arrangements of the belts, as recited in at least dependent claims 3, 4, 7, 12 - 18, 20, 26, 30 - 36, and 38 - 41. Accordingly, Appellants submit that at least these claims are separately patentable over asserted combination of documents, since no proper combination of these documents teaches or suggests their recited features. In particular, Appellant submits that no proper combination of DE '048 and/or SCHIEL as necessary with MacDONALD and further with DAHL and/or MEINANDER, and further with JUSTUS teaches or suggests, *inter alia*, each of said at least two press belts are *dewatering belts*, as recited in claim 3; at least two felts arranged on opposite sides of the fibrous material web, whereby said press nip comprises a double-felted press nip, *said at least two felts are arranged between said press belts*, such that said at least two felts are guided substantially horizontally through said press nip together with the fibrous material web, as recited in claim

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4; said *press plane is inclined* in relation to the vertical reference by an angle ( $\alpha$ ) in the region of approximately 10° to approximately 45°, as recited in claim 7; said at least one water permeable wire web press belt and said at least one open press surface sealing belt are *arranged in a same press shoe unit*, as recited in claim 12; at least one deflection roll and a *collector positioned in a region of said at least one deflection roll*, subsequent to said press nip, at least one of said at least two press belts is guided around said at least one deflection roll, whereby water thrown off said press belt as it is guided around said at least one deflection roll is collected in said collector, as recited in claim 13; *a scraper allocated to said at least one deflection roll*, as recited in claim 14; said at least one *deflection roll is driven*, as recited in claim 15; at least one *additional driven deflection roll* around which said at least one press belt is guided, as recited in claim 16; said at least one *deflection roll is structured and arranged as a belt travel control roll*, as recited in claim 17; press surfaces of said at least two press belts have a *same hardness*, as recited in claim 18; *felts with few markings arranged to be guided through said press nip*, and said felts being arranged to cause symmetrical dewatering, as recited in claim 20; at least two felts arranged on opposite sides of the fibrous material web, whereby said press nip comprises a double-felted press nip, said *at least-two felts are arranged between said press belts*, such that said at least two felts are guided substantially horizontally through said press nip together with the fibrous material web, as recited in claim 26; said at least two felts are *brought together before said press nip*

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and are subsequently guided to said press nip while sandwiching the fibrous material web, as recited in claim 30; a *suctioned guidance roll* arranged downstream, relative to a web run direction, from said press nip, the fibrous material web is guided out of said press nip together with said at least two felts and is *subsequently guided together with one of said at least two felts around said suctioned guidance roll*, which is located in a region in which the fibrous material web is accepted by another section of the machine, as recited in claim 31; *a drying wire is guided in the region of said suctioned guidance roll to accept the fibrous material web from said one felt*, as recited in claim 32; the one felt comprises a lower felt, such that the *fibrous material web is accepted from said lower felt by the drying wire*, as recited in claim 33; another guidance roll arranged to guide said one felt, the *fibrous material web is accepted by the drying wire in a region between said suctioned guidance roll and said another guidance roll*, as recited in claim 34; the *drying wire is guided around a suctioned guidance roll* in the region of acceptance, as recited in claim 35; said *at least two press belts are arranged to be separated immediately after said press nip from said at least two felts* which sandwich the fibrous material web, as recited in claim 36; *first and second felts arranged to sandwich the fibrous material web*, as recited in claim 38; said *first and second felts are arranged between said first and second press belts*, as recited in claim 39; a *pressing plane of said press nip is obliquely oriented in relation to a vertical reference*, as recited in claim 40; and said pressing plane is obliquely oriented at an *angle of between about 10° and*

*about 45° from the vertical reference*, as recited in claim 41.

Further, Appellant submits that claims 2, 5, 8, 9, 24, 25, 27, 28, and 29 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Appellant submits that no proper combination of DE '048 and/or SCHIEL as necessary with MacDONALD and further with DAHL and/or MEINANDER, and further with JUSTUS teaches or suggests, *inter alia*, said fibrous material web comprises one of a paper and a cardboard web, as recited in claim 2; at least one of said two shoe press units comprises a shoe press roll and said sealing belt comprises a jacket of said shoe press roll, as recited in claim 5; at least one of said at least two press belts comprises an open press surface, as recited in claim 8; a press surface of said at least one press belt is at least one of blind bored and grooved, as recited in claim 9; the fibrous material web comprises at least one of a paper and a cardboard web, as recited in claim 24; said shoe press is the only press, as recited in claim 25; the fibrous material web is accepted by one of said at least two felts from a wire belt, as recited in claim 27; a suctioned guidance roll located in a region of a transfer position, at least one of said at least two felts is guided around said suctioned guidance roll, as recited in claim 28; and the fibrous material web is accepted from the wire belt by an upper felt, as recited in claim 29.

Accordingly, Appellant requests that the Board reverse the Examiner's decision to

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finally reject claims 1 - 9 and 12 - 41 under 35 U.S.C. § 103(a) and that the application be remanded to the Examiner for withdrawal of the rejection and an early allowance of all claims on appeal.

**(B) The Rejection of Claims 13 - 17, 22, 40, and 41 Under 35 U.S.C. § 103(a) Over DE '048 and/or SCHIEL as necessary with MacDONALD and further with DAHL and/or MEINANDER as well as with JUSTUS and further in view of LAAPOTTI (U.S. Patent No. 5,662,778) is in Error, the Rejection Should be Reversed, and the Application Should be Remanded to the Examiner.**

The Examiner asserts that LAAPOTTI shows a press plane inclined, and that it would have been obvious to modify DE '048 and/or SCHIEL with MacDONALD to include such an orientation.

While LAAPOTTI purportedly teaches the use of inclined press planes, Appellant submits LAAPOTTI neither teaches nor suggests the subject matter noted above as deficient in either of DE '048 and SCHIEL (with or without MacDONALD, DAHL, MEINANDER, and/or JUSTUS). In particular, LAAPOTTI fails to teach or suggest a press belt comprising a water permeable wire web, as recited in at least the independent claims, and certainly fails to disclose any subject matter that would render proper the above-discussed combination of DE '048 and SCHIEL, with or without MacDONALD, DAHL, MEINANDER, and/or JUSTUS.

Further, Appellant notes that LAAPOTTI fails to teach or suggest a solution to a stated problem of the other applied art which would render the instant invention unpatentable. In particular, as each applied document provides different manners of acting on different portions of the web for differing reasons, Appellant submits that the art of record fails to provide the requisite motivation or rationale for combining the art of record in the manner asserted by the Examiner. Moreover, Appellant submits that, as none of the art provides any teaching as to why one ordinarily skilled in the art would combine the various distinct features of the applied art into a single apparatus, the instant rejections are improper and should be reversed.

As none of the applied documents teach or suggest at least the above-noted features, Appellant submits that no proper combination of the applied documents renders unpatentable the combination of features recited in at least independent claims 1 and 37.

Further, Appellant submits that LAAPOTTI also fails to provide the requisite motivation or rationale for additionally including drive belts on each side of the web in a double felted press, such as taught by DE '048, and certainly fails to teach or suggest that at least one of the drive belts is a water permeable wire web, as recited in the independent claims.

Therefore, Appellant submits that LAAPOTTI fails to provide the necessary motivation or rationale for modifying the web guide belt of SCHIEL to be a water permeable



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wire web, as recited in the independent claims.

Because the applied art fails to provide any motivation or rationale for modifying DE '048 or SCHIEL in any manner which would render the instant invention obvious, Appellant submits that the instant rejection is improper and should be withdrawn.

Further, Appellant submits that claims 13 - 17, 22, 40, and 41 are separately patentable over the art of record. Appellant submits that no proper combination of DE '048 and/or SCHIEL as necessary with MacDONALD, DAHL, MEINANDER, and/or JUSTUS and further in view of LAAPOTTI teaches or suggests, *inter alia, at least one deflection roll and a collector* positioned in a region of said at least one deflection roll, subsequent to said press nip, at least one of said at least two press belts is guided around said at least one deflection roll, whereby water thrown off said press belt as it is guided around said at least one deflection roll is collected in said collector, as recited in claim 13; *a scraper* allocated to said at least one deflection roll, as recited in claim 14; said *at least one deflection roll is driven*, as recited in claim 15; *at least one additional driven deflection roll* around which said at least one press belt is guided, as recited in claim 16; said *at least one deflection roll is structured and arranged as a belt travel control roll*, as recited in claim 17; prior to said press nip, at least one of said at least two press belts is guided around *a deflection roll structured and arranged as a belt travel control roll*, as recited in claim 22; a pressing plane of said *press nip is obliquely oriented* in relation to a vertical reference, as recited in claim 40; said

pressing plane is obliquely *oriented at an angle of between about 10° and about 45°* from the vertical reference, as recited in claim 41.

Accordingly, Appellant requests that the Board reverse the Examiner's decision to finally reject claims 13 - 17, 22, 40, and 41 under 35 U.S.C. § 103(a) and that the application be remanded to the Examiner for withdrawal of the rejection and an early allowance of all claims on appeal.

**(D) Conclusion**

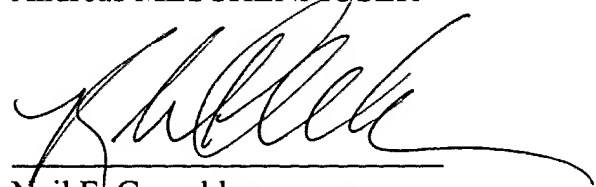
Claims 1 - 9 and 12 - 41 are patentable under 35 U.S.C. § 103(a) over DE '048 and/or SCHIEL as necessary with MacDONALD and further with DAHL and/or MEINANDER, and further with JUSTUS, and claims 13 - 17, 22, 40, and 41 are patentable under 35 U.S.C. § 103(a) over DE '048 and/or SCHIEL as necessary with MacDONALD and further with DAHL and/or MEINANDER, further with JUSTUS, and further in view of LAAPOTTI. Specifically, Appellant submits that the applied art of record fails to teach or suggest the unique combination of features recited in Appellant's claims 1 - 9 and 12 - 41. Accordingly, Appellant respectfully requests that the Board reverse the Examiner's decision to finally reject claims 1 - 9 and 12 - 41 under 35 U.S.C. § 103(a) and remand the application to the Examiner for withdrawal of the rejection.

Thus, Appellant respectfully submits that each and every pending claim of the present application meets the requirements for patentability under 35 U.S.C. § 103(a), and that the

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present application and each pending claim are allowable over the prior art of record.

Respectfully submitted,  
Andreas MESCHENMOSER



Neil F. Greenblum

Reg. No. 28,394

*LA 35, 4/3*

April 21, 2003  
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Attachments:      Appendix: Claims on Appeal

**APPENDIX**  
***CLAIMS ON APPEAL***

1. (Amended) A shoe press for processing a fibrous material web, comprising:  
two shoe press units arranged to form an essentially level press nip elongated in a web travel direction;

each of said two shoe press units comprising a circulating flexible, continuous sealing belt and a press shoe, such that said circulating flexible, continuous sealing belt is arranged to be guided over said press shoe in a region of said press nip;

at least one driving device; and

at least two driven continuous press belts each drivably coupled to said at least one driving device and arranged such that at least one of said at least two driven continuous press belts are positioned on each side of the fibrous material web to guide the fibrous material web through said press nip,

wherein at least one of said at least two press belts comprises a water permeable wire web, and at least one of said at least two sealing belts comprises an open press surface that is at least one of blind bored and grooved.

2. The shoe press in accordance with claim 1, wherein said fibrous material web comprises one of a paper and a cardboard web.

3. (Amended) The shoe press in accordance with claim 1, wherein each of said at least two press belts are dewatering belts.

4. The shoe press in accordance with claim 1, further comprising at least two felts arranged on opposite sides of the fibrous material web, whereby said press nip comprises a double-felted press nip,

wherein said at least two felts are arranged between said press belts, such that said at least two felts are guided substantially horizontally through said press nip together with the fibrous material web.

5. The shoe press in accordance with claim 1, wherein at least one of said two shoe press units comprises a shoe press roll and said sealing belt comprises a jacket of said shoe press roll.

6. (Amended) A shoe press for processing a fibrous material web, comprising:  
two shoe press units arranged to form an essentially level press nip elongated in a web travel direction;

each of said two shoe press units comprising a circulating flexible, continuous sealing belt and a press shoe, such that said circulating flexible, continuous sealing belt is arranged to be guided over said press shoe in a region of said press nip;

at least one driving device; and

at least two driven continuous press belts each drivably coupled to said at least one driving device and arranged such that at least one of said at least two driven continuous press belts are positioned on each side of the fibrous material web to guide the fibrous material web through said press nip,

wherein at least one of said at least two press belts comprises a water permeable wire web, and at least one of said at least two sealing belts comprises an open press surface that is at least one of blind bored and grooved, and

wherein a press plane through said press nip is inclined in relation to a vertical reference.

7. The shoe press in accordance with claim 6, wherein said press plane is inclined in relation to the vertical reference by an angle ( $\alpha$ ) in the region of approximately  $10^\circ$  to approximately  $45^\circ$ .

8. The shoe press in accordance with claim 1, wherein at least one of said at least two press belts comprises an open press surface.

9. (Amended) The shoe press in accordance with claim 8, wherein a press surface of said at least one press belt is at least one of blind bored and grooved.

12. (Amended) The shoe press in accordance with claim 1, wherein said at least one water permeable wire web press belt and said at least one open press surface sealing belt are arranged in a same press shoe unit.

13. The shoe press in accordance with claim 1, further comprising at least one deflection roll and a collector positioned in a region of said at least one deflection roll,

wherein, subsequent to said press nip, at least one of said at least two press belts is guided around said at least one deflection roll, whereby water thrown off said press belt as it is guided around said at least one deflection roll is collected in said collector.

14. The shoe press in accordance with claim 13, further comprising a scraper allocated to said at least one deflection roll.

15. The shoe press in accordance with claim 13, wherein said at least one deflection roll is driven.

16. The shoe press in accordance with claim 15, further comprising at least one additional driven deflection roll around which said at least one press belt is guided.

17. The shoe press in accordance with claim 16, wherein said at least one deflection roll is structured and arranged as a belt travel control roll.

18. The shoe press in accordance with claim 1, wherein press surfaces of said at least two press belts have a same hardness.

19. The shoe press in accordance with claim 1, wherein at least one of said at least two sealing belts comprises a continuous, smooth surface.

20. (Amended) The shoe press in accordance with claim 1, further comprising felts with few markings arranged to be guided through said press nip, and said felts being arranged to cause symmetrical dewatering.

21. (Amended) A shoe press for processing a fibrous material web, comprising:  
two shoe press units arranged to form an essentially level press nip elongated in a web travel direction;

each of said two shoe press units comprising a circulating flexible, continuous sealing belt and a press shoe, such that said circulating flexible, continuous sealing belt is arranged to be guided over said press shoe in a region of said press nip;

at least one driving device; and

at least two driven continuous press belts each drivably coupled to said at least one driving device and arranged such that at least one of said at least two driven continuous press belts are positioned on each side of the fibrous material web to guide the fibrous material web through said press nip,

wherein at least one of said at least two press belts comprises a water permeable wire web, and at least one of said at least two sealing belts comprises an open press surface that is at least one of blind bored and grooved, and

wherein, outside of said press nip, said at least two press belts are guided separately from said at least two sealing belts.

22. (Amended) A shoe press for processing a fibrous material web, comprising:  
two shoe press units arranged to form an essentially level press nip elongated in a web travel direction;

each of said two shoe press units comprising a circulating flexible, continuous sealing belt and a press shoe, such that said circulating flexible, continuous sealing belt is arranged to be guided over said press shoe in a region of said press nip;

at least one driving device; and

at least two driven continuous press belts each drivably coupled to said at least one driving device and arranged such that at least one of said at least two driven continuous press belts are positioned on each side of the fibrous material web to guide the fibrous material web through said press nip,

wherein at least one of said at least two press belts comprises a water permeable wire web, and at least one of said at least two sealing belts comprises an open press surface that

is at least one of blind bored and grooved, and

wherein, prior to said press nip, at least one of said at least two press belts is guided around a deflection roll structured and arranged as a belt travel control roll.

23. (Amended) A press section of a machine for producing a fibrous material web, comprising:

a shoe press including two shoe press units arranged to form an essentially level press nip elongated in a web travel direction;

each of said two shoe press units comprising a circulating flexible, continuous sealing belt and a press shoe, such that said circulating flexible, continuous sealing belt is arranged to be guided over said press shoe in a region of said press nip;

at least one driving device;

each of said two shoe press units comprising at least one driven continuous press belt drivably coupled to said at least one driving device, such that at least one driven continuous press belt is positioned on each side of the fibrous material web to guide the fibrous material web through said press nip,

wherein at least one of said at least one press belts comprises a water permeable wire web, and at least one of said sealing belts comprises an open press surface that is at least one of blind bored and grooved.

24. The press section in accordance with claim 23, wherein the fibrous material web comprises at least one of a paper and a cardboard web.

25. The press section in accordance with claim 23, wherein said shoe press is the only press.

26. The press section in accordance with claim 23, further comprising at least two felts arranged on opposite sides of the fibrous material web, whereby said press nip comprises a double-felted press nip,

wherein said at least two felts are arranged between said press belts, such that said at



least two felts are guided substantially horizontally through said press nip together with the fibrous material web.

27. (Amended) The press section in accordance with claim 26, wherein the fibrous material web is accepted by one of said at least two felts from a wire belt.

28. The press section in accordance with claim 27, further comprising a suctioned guidance roll located in a region of a transfer position,  
wherein at least one of said at least two felts is guided around said suctioned guidance roll.

29. The press section in accordance with claim 27, wherein the fibrous material web is accepted from the wire belt by an upper felt.

30. The press section in accordance with claim 27, wherein said at least two felts are brought together before said press nip and are subsequently guided to said press nip while sandwiching the fibrous material web.

31. The press section in accordance with claim 27, further comprising a suctioned guidance roll arranged downstream, relative to a web run direction, from said press nip,  
wherein the fibrous material web is guided out of said press nip together with said at least two felts and is subsequently guided together with one of said at least two felts around said suctioned guidance roll, which is located in a region in which the fibrous material web is accepted by another section of the machine.

32. The press section in accordance with claim 31, wherein a drying wire is guided in the region of said suctioned guidance roll to accept the fibrous material web from said one felt.

33. The press section in accordance with claim 32, wherein the one felt comprises a lower felt, such that the fibrous material web is accepted from said lower felt by the drying wire.

34. The press section in accordance with claim 32, further comprising another

guidance roll arranged to guide said one felt,

wherein the fibrous material web is accepted by the drying wire in a region between said suctioned guidance roll and said another guidance roll.

35. The press section in accordance with claim 32, wherein the drying wire is guided around a suctioned guidance roll in the region of acceptance.

36. The press section in accordance with claim 27, wherein said at least two press belts are arranged to be separated immediately after said press nip from said at least two felts which sandwich the fibrous material web.

37. (Amended) A shoe press for processing a fibrous material web, comprising:  
first and second shoe press units arranged to form an essentially level press nip elongated in a web travel direction;

said first shoe press unit comprising a first circulating flexible, continuous sealing belt and a first press shoe, such that said first circulating flexible, continuous sealing belt is arranged to be guided over said first press shoe in a region of said press nip;

said second shoe press unit comprising a second circulating flexible, continuous sealing belt and a second press shoe, such that said second circulating flexible, continuous sealing belt is arranged to be guided over said second press shoe in a region of said press nip, wherein at least one of said first sealing belt and said second sealing belt comprises an open press surface that is at least one of blind bored and grooved;

first and second continuous press belts arranged such that said first continuous press belt is positioned between said first press shoe and the fibrous material web, and said second continuous press belt is positioned between said second press shoe and the fibrous material web, wherein at least one of said first and second press belts comprises a water permeable wire web; and

first and second press belt driving devices arranged to drive said first and said second press belts, respectively.

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38. The shoe press in accordance with claim 37, further comprising first and second felts arranged to sandwich the fibrous material web.

39. The shoe press in accordance with claim 38, wherein said first and second felts are arranged between said first and second press belts.

40. The shoe press in accordance with claim 37, wherein a pressing plane of said press nip is obliquely oriented in relation to a vertical reference.

41. The shoe press in accordance with claim 40, wherein said pressing plane is obliquely oriented at an angle of between about 10° and about 45° from the vertical reference.



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In re application of : Andreas MESCHENMOSER

Attorney Docket No. P21299

Serial No. : 09/982,175

Group Art Unit : 1731

Filed : October 19, 2001

For : SHOE PRESS

THE COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

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TC 1700

Examiner : K. Hastings

Sir:

Transmitted herewith is an Appeal Brief under 37 C.F.R. § 1.192 (in triplicate) in the above-captioned application.

- ☐ Small Entity Status of this application under 37 C.F.R. 1.9 and 1.27 has been established by a previously filed statement.
- ☐ A verified statement to establish small entity status under 37 C.F.R. 1.9 and 1.27 is enclosed.
- ☐ A Request for Extension of Time.
- ☐ No Additional Fee.

The fee has been calculated as shown below:

Claims After Amendment	No. Claims Previously Paid For	Present Extra	Small Entity		Other Than A Small Entity	
			Rate	Fee	Rate	Fee
Total Claims: 39	*39	0	x 9=	\$	x 18=	\$ 0.00
Indep. Claims: 6	**6	0	x 42=	\$	x 84=	\$ 0.00
Multiple Dependent Claims Presented			+140=	\$	+280=	\$ 0.00
Appeal Brief Filing Fee				\$		\$320.00
Total:				\$	Total:	\$320.00

\*If less than 20, write 20

\*\*If less than 3, write 3

- ☐ Please charge my Deposit Account No. 19-0089 in the amount of \$\_\_\_\_\_.
- ☒ A Check in the amount of \$320.00 to cover the filing fee is included.
- ☒ The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 19-0089.
- ☒ Any additional filing fees required under 37 C.F.R. 1.16.
- ☒ Any patent application processing fees under 37 C.F.R. 1.17, including any required extension of times fees in any concurrent or future reply requiring a petition for extension of time for its timely submission (37 CFR 1.136)(a)(3)

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5/25/03